In the claims:

1.-31. (Canceled)

32. (Currently Amended) A method of preparing a cancer vaccine, comprising:

(a) contacting a neoplastic cell population with a first fluorescent dye,

(b) contacting ~~an antigen presenting~~ a dendritic cell population with a second fluorescent dye, wherein said first dye is different from said second dye,

(c) contacting said neoplastic cell population and said ~~antigen presenting~~ dendritic cell population with one another under conditions that promote cell fusion,

(d) purifying the resultant hybrid cell population by fluorescence activated cell sorting, and

(e) resuspending the resultant hybrid cell population in a pharmaceutically acceptable vehicle;

wherein said cell sorting does not involve antibiotic or metabolic selection and the tumor antigen diversity of the starting cell populations is preserved in the resultant hybrid cell population.

33.-34. (Canceled)

35. (Previously Presented) The method of claim 32 wherein the resultant cell population contains less than 10% of its total population as reactant cells.

36. (Previously Presented) The method of claim 32, wherein the resultant cell population contains less than 5% of its total population as reactant cells.

37.-40. (Canceled)

41. (Previously Presented) The method of claim 32,-wherein said pharmaceutically acceptable vehicle is normal saline.

42.-43. (Canceled)

44. (Currently Amended) A method of preparing a tumor vaccine, comprising:

(a) contacting a tumor cell population with a first fluorescent dye,

(b) contacting a dendritic cell population with a second fluorescent dye, wherein said first dye is different from said second dye,

(c) contacting said tumor cell population and said dendritic cell population with one another under conditions that promote cell fusion,

(d) purifying the resultant hybrid cell population by fluorescence activated cell sorting, and

(e) resuspending the resultant hybrid cell population in a pharmaceutically acceptable buffer;

wherein said cell sorting does not involve antibiotic or metabolic selection, the resultant cell population contains less than 5% reactant cells, and tumor antigen diversity of the starting cell populations is preserved in the resultant hybrid cell population.